American Association of Avian Pathologists
Biographies of Professionals in Poultry Health

A. Louis Shor

1924 -

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The Life of Louis Shor

I was born in New York, NY on January 13, 1924. I was raised on a dairy and egg farm in New York State and entered the College of Agriculture at Cornell University in 1940. In 1943 I enlisted in the U. S. Army. This enlistment for three years included a year of combat duty in Europe in a field artillery battery.

Returning to Cornell in 1946 I received my BS in Dairy Science in 1947 and joined Lederle Laboratories as a bacteriologist. Drugs were screened against poultry diseases and, when we identified a promising candidate, I was sent to Delmarva to evaluate it under field conditions. In my travels in Delaware and Maryland I encountered my first avian pathologist, Dr. Hiram Lasher, whose firm was marketing some of the first effective poultry vaccines; this was my first exposure to an avian pathologist and the knowledge that this was/is an important branch of veterinary medicine.

Realizing that my professional potential was limited by having only the BS degree, I entered the graduate school of the University of Delaware in 1948 and received the MS in poultry nutrition in 1949. My thesis involved the use of ground feather meal as a replacement for fish meal in broiler diets. This was its first use in poultry although it had been a component of swine diets at Iowa State University. Although deficient in lysine

and methionine, ground feather meal is now commonly used in broiler diets, with appropriate supplementation.

Cornell's veterinary college accepted me in 1949 and I graduated in 1953. I worked for a veterinarian in upstate New York in a practice comprising about 95% dairy cattle, with an occasional pig or horse to be seen. The remaining practice was small animal and was scheduled for specific hours, but we saw those patients whenever we returned from calls.

I next undertook to develop what had been a part-time office with an associate who also had a full-type office and hospital on Long Island. I saw mostly dogs and cats, and an occasional ocelot or bird. I also served dairies and the duck growers who needed health certificates before exporting portions of their flocks. One day I made a house call to the southern shore of Long Island in the midst of a hurricane, with the ocean's waters lapping over the highway, to see an elderly lady's cat with a urethral obstruction (calculus). The cat was nearly comatose and I offered to take the cat to the hospital, where I could remove the calculus and provide supportive treatment. She refused, so I injected a smooth muscle relaxant in the slight hope that it would help, then left. When I sent a bill, I received a letter in return: "You killed my cat, I will not pay you anything."

After two years in practice, I rejoined Lederle in 1955. Based in Kansas City, MO, I conducted antibiotic feeding and antiparasitic studies with company-owned beef and sheep in Kansas and established field trials with university and commercial feed lots/ranches throughout the West and Mid-West. I was transferred to Greeley, CO for a brief period and then was brought back to Lederle at Pearl River, NY to take over the dairy cattle program. This included the first studies on continuous feeding of antibiotics to dairy cattle, while avoiding bloat which everyone had predicted.

Hookworms in dogs now attracted our attention. The capsule treatment resulted either in underdosing – lack of efficacy, or overdosing – toxicosis. I sent disophenol to university clinicians and private practitioners throughout the country, and it became the first injectable suitable for exact dosing and had excellent efficacy. Newer drugs have a broader spectrum of activity and may be easier to administer, but that is why research must be continuous.

When establishing studies at universities to determine safety and effectiveness of drugs under local conditions, I encountered mixed reactions. Some deans and experiment station directors were eager to cooperate, realizing they would be able to recommend – or not recommend – a product to livestock producers in their states when it became available, based on first-hand experience. Other deans/directors did not want their department heads doing applied research: they believed their universities' functions were basic research and teaching and that accepting commercial grants would affect their integrity.

As a poultry specialist, I developed growth promoters, a coccidiostats, anthelmintics, and pigmenting agents for broi8lers and turkeys. We had to show not only safety and efficacy when used alone, but also when used in combination with other drugs. During

this period, I went to Israel, where I gave a paper at an international poultry conference. At a reception for speakers at the conference, I was approached by a man from Czechoslovakia, then under Soviet control. He told me in guarded voice that he wanted to defect and might be able to do so if he could get an invitation to attend the National Turkey Federation Conference in the United States. The next morning, when my wife greeted him in the public hall, he pretended not to see us. I indicated that Soviet agents were watching him and he could not appear to be friendly to a Westerner. The agents had been unable to attend the speaker' reception the previous evening and that had been his only opportunity to speak to anyone. (I did arrange for his invitation, but never learned whether that scientist was allowed to attend the Conference.)

Lederle's parent, American Cyanamid, spun off its agricultural products into several successive divisions which finally became the Agricultural Division in Princeton, NJ in 1958. After two years as Manager of the Clinical Development Laboratory, which conducted safety, efficacy and tissue residue studies with all species, I was named Manager of the Poultry Program. I designed and supervised studies on site and in the field to generate PDA-required data on safety and efficacy of a coccidiostat, pigmentors, molting agents, etc. Upon completion of the studies I assisted in the preparation of the New Animal Drug Applications (NADAs).

With the move to Princeton, the Poultry Pathologists Conferences, originated by the late Dr. Charles A. (CAB) Bottorff and held at Bear Mountain, NY in alternate years, were moved to Princeton. I assisted CAB with the first one at the new site and, following his retirement, assumed responsibility for them. The last Conference—although we did not know it at the time--was held near St. Louis, MO to facilitate travel for our Western friends. Expanded duties, per the following paragraph, no longer allowed the time required for future Conferences.

In the mid-70's a promising aminoglycoside to treat shipping fever in cattle was discovered and, due to a personnel shortage, my title was changed to Manager, Veterinary Research Projects and I was asked to evaluate the compound in feed lots in Kansas, Colorado and California. Although extremely effective the compound was dropped because of an extended--now 18 months--withdrawal time which would have been required. (Other aminoglycosides are now approved for piglets and turkey poults because of the inherent long withdrawal times in those species.) I mention it as an example of how hundreds of thousands of dollars and many months can be spent on a drug, only to have it fail because of toxicity or lack of efficacy at a reasonable dosage.

I was asked to join the firm's regulatory affairs department. This involved meeting with FDA and Canada's Health Protection Branch to determine requirements for drug approval, interacting with colleagues, and submitting data on the agencies when the work was done.

In late 1980, after 27 years with Lederle/American Cyanamid, I joined SmithKline Beckman (later SmithKline Beecham) Animal Health Products as Manager, Clinical Development—all species. While involved with albendazole for cattle, sheep and goats,

most of my efforts were devoted to gaining approval for the use of virginiamycin in broiler feeds alone and in combination with anticoccidials and pigmentors in the United States and Canada.

In 1988 the Manager of Regulatory Affairs left the Company and I was asked to include her duties with my development work on a "temporary" basis. After a few months development responsibilities were given to someone else and I became Manager, Regulatory Affairs and Manufacturing Quality Assurance for the U. S. and Canada. I prepared submissions and interacted with PDA, Health Protection Branch (Canada), and state and provincial officials.

One of the possible benefits of association with international companies is international travel. In my case it was limited. However, on a single trip for Cyanamid I went to London to comment on growth promoters for broilers, Belgium to discuss levamisole antiparasitic for chickens and turkeys, Paris for metabolic regulators, Munich for studies on antibiotic resistance and Italy to review growth promoters again. The final stop on that trip was in Israel to discuss a possible project at the Weizmann Institute and to present a paper on Payzone(R) nitrovin, a broiler growth promoter approved for years in Europe but not in the U.S., / fat a European Poultry Conference.

SmithKline sent me to Madrid to present scientific data on our products to our European technical service veterinarians and on to Beerse and Brussels, Belgium to visit the fermentation plant where virginiamycin is produced. I retired from full time activity in 1990 but do occasional consulting for industry to stay alert and informed.

With respect to service in professional organizations I was a member of the American Society of Animal Science, Poultry Science Assn., Dairy Science Assn.--served on one of its committees--, AAAP--served on the Audit Committee and as AAAP representative to the AVMA's Drug Advisory Committee--as well as local, state and national VMAs. I was secretary and, later, president, of what is now known as the American Association of Industrial Veterinarians and was honored as the Industrial Veterinarian of the Year in 1988. This association has done much to improve the perception and actual competence of industrial veterinarians by its workshops and meetings. I also served on several task forces of the Animal Health Institute, a trade organization of animal health companies that works with government agencies to assure that laws and regulations are fair and reasonable.

Industrial veterinarians were once considered outcasts by the rest of the profession. At one time, there was even a movement to deny them membership in the AVMA. Formation of the Industrial Veterinarians Association, in the 1930s, I believe, with its educational programs and its message that industrial veterinarians are ini the forefront of new drug development, basic research in various disciplines, and technical service that informs practitioners of useful new products and procedures have changed the perception of us, however. In fact, two industrial veterinarians have served as AVMA presidents in recent years, bringing credit to the entire profession.

Representing the avian pathologists on AVMA-s Drug Availability Advisory Committee for several terms, I met with representative of other species groups, the AVMA Councils, and the AVMA staff members. This committee serves the interest of keeping useful old drugs available, making new drugs more readily available, and stopping the improper use of drugs. My trips to Schaumburg have made me aware of how much the AVMA actually does to help the profession at local and national levels, and I would strongly urge veterinarians to be active in their local, state, and national organizations.

During my career I was sole author or coauthor of several scientific papers, have written chapters for encyclopedias and reference works. I currently review books on animal care, treatment and training for Library Journal.

My life in veterinary medicine – both practice and industry – has enabled me to meet a cross section of humanity, from the illiterate feedlot cowhand to college and corporate presidents. I have learned that our profession affects all people by making wholesome food plentiful and inexpensive and strengthening the human/animal bond, which is so essential to our well-being. There may be equal professions, but none finer.

Note: Some of the above text is from a reflection, authored by Louis Shor, and published in **JAVMA, 203 (11), 1529-1531, 1993**. It was inserted into this biography by R. L. Witter, in 2008, with the purpose of creating a more complete document to celebrate the career of Dr. Shor. Dr. Shor mentions the Bear Mountain Poultry Disease Conferences, initiated by Bottorff and continued under his leadership. Dr. Shor has kindly donated proceedings of all Bear Mountain and subsequent American Cyanamid conferences to the AAAP archives, creating a rich historical resource of poultry medicine in the 1950s and 1960s.

Biography solicited by the Committee on the History of Avian Medicine, American Association of Avian Pathologists.

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Additional biographical materials may be available from the AAAP Historical Archives located at Iowa State University. Contact information is as follows:

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